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Opalux Introduces Polycarbonate ID-Lock



Opalux's Polycarbonate ID-Lock is highly transparent at most angles (left). At select angles, PC ID-Lock's vibrant, multi-colour colour-shifting reflections catch the eye (centre) and colour-shift (right). This optical variability permits PC ID-Lock to protect personalised information in polycarbonate documents, without interfering with document legibility.

Opalux, based in Toronto, Canada, has developed Polycarbonate ID-Lock (PC ID-Lock), a multi-colour colour-shift security feature that protects personalised polycarbonate documents from surface attack. A patch of PC ID-Lock is embedded within the polycarbonate structure during polycarbonate lamination. Lying on top of the laser-engravable polycarbonate layer, PC ID-Lock's colour-shifting patterns provides tamper-evidence for the laser-engravable polycarbonate layer.

PC ID-Lock is compatible with standard polycarbonate lamination conditions and is transparent to standard polycarbonate engraving lasers, enabling portraits and other personalised information to be engraved through the material unhindered. The resulting personalised information is thereby protected by PC ID-Lock's multi-colour colour-shifting designs.

At most angles, PC ID-Lock is highly transparent, enabling the underlying personalised information to be easily read. At select angles, PC ID-Lock's colour-shifting reflections catch the eye, and provide a brighter, colour-shifting alternative to standard high-refractive index holograms.

Unlike a hologram, no mastering process is required to generate different designs in PC ID-Lock, providing designers with an enhanced level of control at lower cost. This control is further enhanced by PC ID-Lock's wide variety of colour ranges. For example, one version of PC ID-Lock has a colour palette spanning the colour spectrum from infrared to yellow (including all intermediate colours) for designs. Upon tilting, each colour in this palette shifts, giving a shifted colour spectrum of red to blue, including all intermediate colours. Numerous other colour palettes are also available.

PC ID-Lock is based on OpalPrint, Opalux's personalised security material. OpalPrint permits personalised, multi-colour colour-shifting security features to be added to high-security identity documents as surface-applied laminates or patches. According to the company, PC ID-Lock is an important step towards an embedded polycarbonate OpalPrint feature that can be personalised following polycarbonate lamination.

Additional information on OpalPrint can be found at: <http://opalux.com/news/opalprint-laser-personalization/>.

Opalux is validating PC ID-Lock and OpalPrint with leading security printers, component suppliers and government authorities. For further information, contact andrew.binkley@opalux.com.

NFC Makes Inroads into Spirits Market

Smart security closures are beginning to make inroads into the spirits sectors, with a number of new initiatives under development or under way.

NXP Semiconductors, for example, has teamed up with packaging specialist Guala Closures to develop anti-counterfeit and tamper-evident closures for the wine and spirits industry.

The collaboration will focus on closures that make use of near-field communication (NFC) technology to detect and log bottle opening and provide consumers with evidence of the provenance of a bottle via a smartphone app.

'NFC will also be used to offer a direct engagement touch point with consumers,' said the two companies in a joint statement. 'With a simple tap from an NFC-enabled smart device, consumers can learn more about the beverage in question, receive cocktail recipes, special offers, loyalty rewards and much more'.

Selinko's Capsel rolls out

A company that has already developed an NFC-enabled solution for the spirits market, meanwhile, and one which is now being deployed, is Selinko Belgium with *CapSeal*, a joint development with Inside Secure of France. This incorporates the latter's *Vault IC 154* NFC chip within a capsule that seals the neck of the bottle, making it possible to tell if it has previously been opened (see AN May 2014).

Rémy Martin, for example, announced last year that it is using Selinko's technology to allow consumers in China to check both the authenticity of its Club brand (which sells for around \$100), as well as when a bottle has been opened. After downloading an app for their smartphone, a would-be purchaser can tap the top of the 'connected bottle' and will know instantly whether it is genuine and sealed.

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